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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/899,334	07/05/2001	Johan Ubbj	1931/62303	2617

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EXAMINER

FIGUEROA, FELIX O

ART UNIT

PAPER NUMBER

2833

DATE MAILED: 05/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/899,334

Applicant(s)

UBBY ET AL.

Examiner

Felix O. Figueroa

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-45 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of: ____
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

Claims 1; 5, 9, 10, 14, 21, 25 and 38 are objected to because of the following informalities:

In claim 1 line 2; claim 10 line 2; claim 21 line 2, --a-- should be inserted prior to "plurality".

In claim 5 line 2; claim 14 line 2; claim 25 line 2; claim 34 line 2, "its" should be --the--.

In claim 9 line 4; claim 38 line 4, --a-- should be inserted prior to "monitoring".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 21, 39, 40, 43 and 45 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 21 lines 2-3, "the same" and "its entire length" lack antecedent basis.

In claim 39 line 3, "the same" and "its entire length" lack antecedent basis.

In claim 40 line 2, "the respective shape" lacks antecedent basis. In line 3, "the same" and "its entire length" lack antecedent basis.

In claim 43 line 1, "the shape" lacks antecedent basis.

In claim 45 line 1, "the shape" lacks antecedent basis.

Claim Rejections

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Davis (US 4,568,401).

Davis discloses a cable monitoring cable comprising: a cable (10) including a plurality of individual wires (12,14) each extending substantially an entire length of the cable, and a plurality of electrodes (20,26) connected to a respective one of the plurality of cables and positioned at various points along the cable.

Claims 1, 2, 4, 5, 7-11, 13, 14, 16-22, 24, 25, 27-29, 39, 40,44 and 45 are rejected under 35 U.S.C. 102(b) as being anticipated by Kruppenbach et al. (US 3,923,121).

Kruppenbach discloses a monitoring cable comprising: a cable / plurality of respective cables (12) including a plurality of individual wires (56) each extending substantially an entire length of the cable and a plurality of electrodes / electrode

connectors (14) each connected to a respective one of the plurality of individual wires and positioned at various points along the cable.

Regarding claims 2, 11 and 22, Kruppenbach also discloses each of the plurality of individual wires comprising a single strand wire.

Regarding claims 4, 13 and 24, Kruppenbach teaches the electrodes are integrally formed in the cable (col. 3 line 39-41).

Regarding claims 5, 14 and 25, Kruppenbach also teaches resistive elements (80) positioned between a respective electrode and a respective one of the plurality of wires.

Regarding claims 7, 16 and 27, Kruppenbach shows the cable being substantially circular in cross section.

Regarding claims 8, 17 and 28, Kruppenbach inherently discloses the individual wires being electrically insulated from each other.

Regarding claims 9, 18 and 29, Kruppenbach also shows an interface connector (52) provided at one end of the cable and including a plurality of contact points connected to a respective one of the individual wires.

Claims 3, 12 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruppenbach in view of Hart et al. (US 3,325,765).

Kruppenbach discloses substantially the claimed invention except for the single strand wires instead of the multi-strand wires. Hart shows that a multi-strand wire is an equivalent structure known in the art for single strand wire. Therefore, because these two wires were art-recognized equivalents at the time the invention was made, one of

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ordinary skill in the art would have found it obvious the substitution of single strand wires for multi-strand wires to complete the electrical connection.

Claims 6, 15 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruppenbach in view of Poon (US 5,601,448).

Kruppenbach discloses substantially the claimed invention except for a circular cable instead of flat cable. Poon shows that a flat ribbon cable is an equivalent structure known in the art for a circular cable. Therefore, because these two cables were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious the substitution of a circular cable for flat ribbon cable to carry the plurality of individual wires.

Claims 21, 22, 24, 27 and 28 are rejected under 35 U.S.C. 102(b) as being anticipated by Lilleberg (US 1,574,297).

Lilleberg discloses a cable (12) including a plurality of individual wires (15), the cable being shaped substantially the same for substantially its entire length; and a plurality of electrodes (13) electrically connected to a respective one of the plurality of individual wires and positioned at various points along the cable. Lilleberg also discloses each of the plurality of individual wires comprising a single strand wire. Lilleberg teaches the electrodes are integrally formed in the cable. Lilleberg shows the cable being substantially circular in cross section. Lilleberg discloses the individual wires being electrically insulated from each other.

Claims 30-31, 33, 34, 36-38, 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kruppenbach et al.

Specifically on claims 30, 41 and 42, Kruppenbach discloses substantially the claimed invention except for the cable tapering from one end to another end. However, it would have been an obvious matter of design choice to form the cable tapering from a first end to a distal end, since applicant has not disclosed that such design solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the structure of Kruppenbach.

Regarding claim 31, Kruppenbach also discloses each of the plurality of individual wires comprising a single strand wire.

Regarding claim 33, Kruppenbach teaches the electrodes are integrally formed in the cable (col. 3 line 39-41).

Regarding claim 34, Kruppenbach also teaches resistive elements (80) positioned between a respective electrode and a respective one of the plurality of wires.

Regarding claim 36, Kruppenbach shows the cable being substantially circular in cross section.

Regarding claim 37, Kruppenbach inherently discloses the individual wires being electrically insulated from each other.

Regarding claim 38, Kruppenbach also shows an interface connector (52) provided at one end of the cable and including a plurality of contact points connected to a respective one of the individual wires.

Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kruppenbach in view of Hart et al.

Kruppenbach discloses substantially the claimed invention except for the single strand wires instead of the multi-strand wires. Hart shows that a multi-strand wire is an equivalent structure known in the art for single strand wire. Therefore, because these two wires were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious the substitution of single strand wires for multi-strand wires to complete the electrical connection.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kruppenbach in view of Poon.

Kruppenbach discloses substantially the claimed invention except for a circular cable instead of flat cable. Poon shows that a flat ribbon cable is an equivalent structure known in the art for a circular cable. Therefore, because these two cables were art-recognized equivalents at the time the invention was made, one of ordinary skill in the art would have found it obvious the substitution of a circular cable for flat ribbon cable to carry the plurality of individual wires.

Claims 30, 31, 33, 35, 37, 38 and 42 are rejected under 35 U.S.C. 102(b) as being anticipated by Schoeckert et al. (US 5,546,950).

Schoeckert discloses a monitoring cable comprising: a cable (10) including a plurality of individual wires (12a-j), the cable tapering from a first end to a second end and a plurality of electrode connectors (16) each electrically connected to a respective one of the plurality of cables and positioned at various points along the cable.

Regarding claim 31, Schoeckert shows single strand wires.

Regarding claim 33, Schoeckert also discloses the connector electrodes integral with the cable.

Regarding claim 35, Schoeckert discloses a substantially flat ribbon cable.

Regarding claim 37, Schoeckert teaches the wires being electrically insulated from each other.

Regarding claim 38, also teaches an interface connector at one end of the cable.


Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Robbins (US 4,686,998), Kroll et al. (US 4,890,630), Leonard et al. (US 5,236,374), Schoppelrey (US 4,099,824) and Redmond et al. (US 5,176,535) teach cables having electrodes at various points along a cable.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Felix O. Figueroa whose telephone number is (703) 308-0097. The examiner can normally be reached on Mon.-Fri., 8:00-5:00.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

ffr
May 23, 2002



FELIX O. FIGUEROA
EXAMINER